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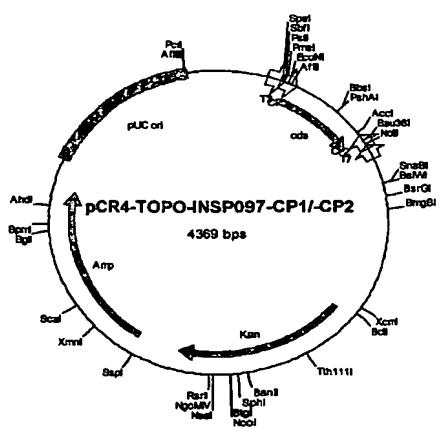
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[Continued on next page]

(54) Title: ALPHA MACROGLOBULIN FAMILY MEMBER

pCR4-TOPO-INSPO97-CP1/-CP2, 4369 bps DNA Circular				
Type	Start	End	Name	Description
MARKER	205		M13R	M13 rev priming site
MARKER	243		T3	T3 priming site
REGION	295	706	Insert	INSPO97-CP1/-CP2 PCR product
GENE	295	699	cds	INSPO97 receptor binding domain cds
MARKER	295		CP1	INSPO97-CP1 PCR primer
MARKER	706		CP2	INSPO97-CP2 PCR primer
MARKER	759		T7	T7 priming site
MARKER	782		M13F	M13 for priming site
GENE	1571	2365	Kan	Kanamycin resistance gene ORF
GENE	2569	3429	Amp	Ampicillin resistance gene ORF
REGION	3574	4247	pUC ori	pUC origin

(57) Abstract: This invention relates to a protein, termed INSP097, herein identified as a member of the alpha macroglobulin family, in particular as a alpha-2-macroglobulin-like proteinase inhibitor, and to the use of this protein and nucleic acid sequences from the encoding gene in the diagnosis, prevention and treatment of disease.





KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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1 July 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

PCT/GB 03/04786

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/81 C12N15/11 C12N15/63 C12N5/10 C12Q1/68
 A61K38/46 A01K67/027

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K C12N C12Q A01K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, PAJ, WPI Data, EMBL, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02 079398 A (GORMAN LINDA; BURGESS CATHERINE E ; SPYTEK KIMBERLY A (US); VERNET) 10 October 2002 (2002-10-10) Only the relevant parts of the document are provided claims 1-32; example 26; tables 26D-F	1-15, 19-45
X	NIELSEN K L ET AL: "Amino acid sequence of hen ovomacroglobulin (ovostatin) deduced from cloned cDNA." DNA SEQUENCE: THE JOURNAL OF DNA SEQUENCING AND MAPPING. SWITZERLAND 1994, vol. 5, no. 2, 1994, pages 111-119, XP009027250 ISSN: 1042-5179 abstract; figure 2	1-15, 19-45

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the International search report

9 March 2004

07/05/2004

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NAGASE H ET AL: "OVOSTATIN A NOVEL PROTEINASE INHIBITOR FROM CHICKEN EGG WHITE 1. PURIFICATION PHYSICOCHEMICAL PROPERTIES AND TISSUE DISTRIBUTION OF OVOSTATIN" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 258, no. 12, 1983, pages 7481-7489, XP002272798 ISSN: 0021-9258 abstract -----	1-15, 19-45
A	QAZI USMAN ET AL: "On the structural changes of native human alpha2-macroglobulin upon proteinase entrapment: Three-dimensional structure of the half-transformed molecule" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 273, no. 15, 10 April 1998 (1998-04-10), pages 8987-8993, XP002272799 ISSN: 0021-9258 cited in the application abstract -----	1-15, 19-45

INTERNATIONAL SEARCH REPORT

PCT/GB 03/04786

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 20, 25-29 are directed to a diagnostic method practised on the human/animal body and claims 30, 35-38 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 16-18 (all completely) and 14, 19-22, 31, 33-37 (all partially)

Present claims 16-18 (all completely) and 14, 19-22, 31, 33-37 (all partially) relate to a compound defined by reference to a desirable characteristic or property, namely binding to alpha-2-macroglobulin-like proteinase inhibitor and increase or decrease of the level of expression or activity of said protein. The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to antibodies.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

PCT/GB 03/04786

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
WO 02079398	A 10-10-2002	US	2004002120	A1	01-01-2004
		CA	2440108	A1	10-10-2002
		EP	1373526	A2	02-01-2004
		WO	02079398	A2	10-10-2002
		US	2003207348	A1	06-11-2003
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